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THE WAR HOUSING PROGRAM AND ITS FUTURE

The government has invested between \$150,000,000 and \$175,000,000 in its assumption of responsibility for the living conditions of industrial workers during the war. Of this about two-thirds has gone into the acquisition of land¹ and the actual construction of housing and miscellaneous community accommodations of some permanency. The rest has been expended in supplementing local transportation, emergency conversion of existing housing facilities and the like, expedients more temporary in character. So far as practical activity is concerned, the efforts involved in this program occupied a period of only ten months, and the greater part of them were included in the six months from the middle of May to the middle of November, 1918.

The most obvious comment on these facts emphasizes the comparative insignificance of this outlay in the face of the billions spent by the United States on the war as a whole and the corresponding expenditure on housing by European nations, as witness the more than \$700,000,000 invested in housing for workers by Great Britain even prior to 1918. Closer scrutiny prevents so casual a dismissal of the subject, for two main reasons. First, the whole story of the origin of the war housing problem and its treatment offers one of the best available cross-sections of national war effort in its relation to industrial problems; and, second, through government intervention, for the first time in our national history an effort has been made to deal with industrial community life in accordance with a carefully planned and liberal-minded policy. True, any general social purposes in the administration of the work were largely subordinated to the object in view—the prosecution of the war; but it is this very fact that gives the government's policy its real significance. The war has emphasized as never before the vital relation of decent living conditions to production, and whatever the immediate disposition of the projects undertaken this lesson can hardly fail of some effect.

¹ Roughly perhaps \$100,000,000.

The war housing problem was only one of the many lessons in practical economics thrust on a somewhat unsophisticated and flustered nation by the early months of the emergency, but in many ways it is the most typical of them all. It demanded a national policy, a program, and an administrative machine where none had existed; it was in every sense the assumption of an entirely new national responsibility. It demonstrated clearly through the long delay consumed before effective action was secured the sluggish and inelastic character of American governmental machinery. It was unforeseen, forcing itself on the consideration of the government, and it was so distinctly a product of the emergency that in all probability it would never have presented such an acute war problem, certainly not in the first year, had not the government's own policy greatly augmented its seriousness.

Before discussing the government's attitude toward the question and the policy it adopted, it will be well to glance briefly at the housing situation in the United States and see just how the problem arose.

THE HOUSING SITUATION IN 1917

One of the members of a British mission, which visited this country late in 1917, when asked to give some information on housing problems, expressed great surprise that the United States, with its natural resources in building materials and its territorial extent both infinitely larger than those of Britain, should have a housing problem which could not be met adequately by the communities concerned. It was an unconscious reliance on the same general considerations, vaguely realized, which caused the nation's difficulties.

The facts were these: For several years experts have been regarding the industrial housing question in the United States with growing alarm. The construction of workmen's houses is an undertaking which is peculiarly liable to abuse if left entirely to speculative treatment because of the limited rents which can be charged working-class tenants, and it is decidedly significant that the United States is the only modern industrial nation which had not prior to the war taken some steps to give community aid to the solution of the problem. Many voluntary organizations

had been attempting to direct attention to the serious dangers of congestion, overcrowding, bad construction, and all their attendant evils even before 1914, but without securing any adequate attention to the need for treatment of the subject as a specialized problem.

Against such a background the outbreak of hostilities in 1917, with its tremendous demand for building materials and workmen for strictly war needs, such as the construction of cantonments, arsenals, munition plants, ships, and the like, made the building even of the most flimsy workmen's houses an extremely risky undertaking. The difficulty of obtaining materials and men was soon further augmented by federal restrictions. A certain number of more farseeing employers of the larger class were undertaking some house construction, but employers in general had their capital so completely occupied in plant expansion and transformation that this source offered no real solution. The United States Housing Corporation, the agency which later assumed the administration of the government's general housing policy, estimates that the annual expenditure for workingmen's houses was cut in 1917 to 10 per cent of the normal.

Against this startling decrease in supply of all houses, good or bad, must of course be set off a very distinct decrease in the aggregate demand through a falling off in immigration and especially through the large number of men from the industrial ranks that were called to the colors. Indeed, if quality is disregarded—and it is unquestionable that a great deal of existing housing was not of a character to promote efficient production—it is probable that the aggregate shortage in housing during the war has been distinctly less than the apparent shortage.

Strictly from the point of view of emergency war demands, the crux of the problem lay mainly in a dislocation of population due to an extremely abnormal distribution of the labor supply, which produced congestion in housing conditions in the Northeast and Middle Atlantic states, with a partly corresponding surplus in other sections of the country.¹

¹ It is improbable that this surplus was wholly sufficient to have taken care of the congestion even under a better balanced scheme of distribution of war pro-

The causes of this abnormal distribution were three: the concentration of allied contracts in the eastern states in the years before the United States entered the war, due chiefly to their proximity to seaports; the emphasis on these same centers in the distribution of American war orders because of their apparent advantages in plant expansion; and finally the location of new shipyards at points remote from existing housing facilities. For the first, of course, the government was in no sense responsible, but the second a more carefully planned allocation of war orders would have minimized, while it is probable that the third might have been somewhat alleviated by more careful attention to the needs of the labor supply.

Disregarding for the moment the responsibility, October, 1917, six months after the war began, found this condition existing. Wages in eastern munition plants and shipyards were high. Workmen were drifting into towns like Bridgeport, Bethlehem, and Sparrows Point, attracted by the money, working for a few days, and then, unable to find living quarters, drifting away again. The turnover, with its consequent loss of efficiency, was enormous, averaging in many places from 200 to 300 per cent.¹ It was not at all an uncommon thing to find output cut 30 to 50 per cent by lack of housing in the munitions community.

In the face of these inroads on the war production program, retrospect makes it seem somewhat strange that the government had not already discovered the cause and taken active steps to remedy the difficulty. The reasons are two: first, the national lack of appreciation of the complexity of the production problem, disregard of the labor factor, and above all the absence of adequate machinery for obtaining the facts in the industrial situation;

duction. Investigations by the Division of Surveys and Statistics of the Housing Corporation have, however, demonstrated conclusively the existence of a surplus of facilities in several mid-western towns, notably Portsmouth, Ohio; South Bend, Indiana; and Michigan City, Indiana. Informal surveys have established the same facts in other places.

¹ The figures used are those of the Housing Corporation and expert witnesses before congressional committees. They are probably over-conservative. It must be remembered that lack of housing was not the only cause of turnover, but in most cases it was the strongest contributing factor.

second, the lack of single responsibility for the housing problem, at bottom only one phase of the absence of central control over production.

To understand these two basic weaknesses is really to understand the alpha and omega of the mistakes in the government's whole industrial policy during the first year of the war.

THE BUREAUS AND THE HOUSING PROBLEM

Throughout the first six months there were at least six important government bureaus¹ in the field for munitions of various kinds, each of them responsible for its own policy, each vying with the other in obtaining materials, and none of them apparently considering in any effective sense the basic industrial elements which must be properly handled to secure anything like continuity of production. The government, if the production bureaus can be discussed collectively, tended to see the problem only as one of distribution of contracts.² The fulfilment of these contracts was left very largely to the hurly-burly of peace-time competitive methods in the face of an abnormal industrial situation. Generally speaking the individual manufacturer was thrown a contract and left to solve his own industrial problem, both as to materials and man power. Without a central planning scheme even the distribution of contracts went on in patchwork fashion, each contracting bureau

¹ Ordnance, Quartermaster, Signal Corps (Air Service), Medical Corps, in the War Department; Bureau of Supplies and Accounts and Marine Corps, in the Navy Department; and the Emergency Fleet Corporation.

² Some of the testimony before congressional committees on the housing situation throws a side light on the early confusion in Washington in the purchasing bureaus. For instance, Philip Hiss, chairman of the Housing Section of the Committee on Labor of the Council of National Defense, testifying before the Senate Committee on Commerce on January 11, says: "Why didn't the government know about this thing we have been talking about for six months [i.e., housing conditions]? I will answer that in this way: I have no criticism to make of the government. One of the generals before us [in an investigation by the Housing Committee] was asked by me, 'General, why didn't you know this?' 'Well,' he said, 'possibly I ought to have known it, but all of a sudden a hundred times the work I had was placed on my shoulders. I have had 96 clerks; I have asked for 5,000. I was given 192-96 more. I have 1,875 clerks now and am going fast toward 3,000. I was working twenty hours a day. We had to organize, and we had to attend to the thing that was right on the desk before us.' "

placing its own work wherever it thought the plant facilities the best. The result was the congestion already mentioned.

The reasons for the sectional concentration are perfectly obvious and if considered by themselves would have been valid. The only manufacturers in the United States who had had experience in making modern munitions were those who had been doing this work for the allied governments. Naturally the first thought of the men responsible for the production of American munitions in the early days of turmoil was that these manufacturers should be loaded up with all the additional work they could take and that other shops in their neighborhood could take advantage of their experience and develop more rapidly than plants in new districts. It is true that going plants can generally be expanded more efficaciously than new organizations can be created, provided they can get the men to work them. This last condition was almost wholly overlooked, and Bridgeport and its companion munition towns were filled to overflowing with plants, while lacking adequate living accommodations for their employees.¹

When it is stated above that no effective unification of control had been effected, it is not meant to imply that sincere efforts were not being made to bring order out of the chaos, and not without

¹ While it is probably safe to assert that in the aggregate the benefits of a wider geographic distribution of war orders in accordance with the existing labor supply would have outweighed, from the point of view of production results, the apparent initial advantages of the munition towns, this is not equivalent to saying that it was not necessary to concentrate in certain localities in the case of certain specialized forms of war supplies. For instance, see the testimony of Admiral Rousseau on February 11 before the House Committee on Labor with regard to the limited facilities for building destroyers, and the similar testimony of Mr. G. H. Dorr, representing the War Department, regarding the location of explosive plants. In the latter case, where the work was started after some sad experience with the housing difficulty in other places, some effort was made from the beginning to provide in advance for living accommodations for the workmen. Despite this necessity for concentration in excess of existing housing facilities in some instances, the fact remains that to achieve the purpose in view, production, housing had to be provided, and that in most places no effective action was taken until its absence had crippled output for many months. If the situation were to be met adequately either one solution or the other had to be accepted—either a wide distribution of work where living accommodations existed or an immediate emergency construction program where the contracts were actually placed. Generally speaking neither plan was adopted, and the only conclusion to be drawn is that the production problem was very imperfectly understood.

some amelioration of the confusion. These efforts were centered chiefly in the Council of National Defense, the only existing body where there was a chance of setting up a measure of central direction, although the Council's power in the light of later developments was wholly inadequate. By October a great deal of valuable assistance had been rendered the production bureaus by various branches of the Council, and something in the nature of an industrial clearing-house and priority system had been established by the General Munitions Board and the early War Industries Board¹ which superseded it. Yet the influence of this body, while good so far as it went, was far from controlling. There was still no really concerted planning in the distribution of contracts, even had it been possible then to avert the housing difficulties already magnified by the mistakes of the first six months.

What the bureaus and the entire government lacked perhaps more than anything else in their efforts to secure effective and continuous production was machinery for collecting, digesting, and interpreting information about industrial conditions throughout the country, both for initial use in placing contracts and for following up production.² Of the need for effective assistance of this kind, which seems now so self-evident, the bureaus seem to have been, almost to the end of the war, largely oblivious. It was to a considerable extent the lack of such machinery that caused the government's delay in appreciating the effects on output of the housing and general industrial community situation.

THE FIRST INVESTIGATIONS

Sufficient evidence, if other were wanting, of this lack of effective fact-gathering machinery in the production bureaus, is found in the source from which information as to the loss in production from housing conditions first reached responsible ears. Essentially it came from the labor movement itself. Late in June, 1917, Mr. Philip Hiss, a New York architect, who had been

¹ See C. N. Hitchcock, "The War Industries Board: Its Development, Organization, and Functions," *Journal of Political Economy*, XXVI (June, 1918), 545-66.

² See Report of the Division of Statistics in the *Second Annual Report* of the Council of National Defense. The Director and the Advisory Commission of the Council were alive to the need.

appointed chairman of a subcommittee on housing of Mr. Gompers' Committee on Labor of the Council of National Defense, acting very largely on his own initiative and paying his own expenses, began an investigation of industrial community conditions in various parts of the country.

His report, while probably in itself not sufficiently exhaustive to constitute a basis of action, even had there been in existence a government agency authorized to act, did indicate clearly certain very alarming conditions. In due course of time it reached the Council of National Defense, and the Council's response was to create a committee of its own, headed by Otto M. Eidlitz, of New York, to make a more thorough investigation and submit recommendations. It must be remembered in this connection that the Council, although it included in its membership the Secretary of War and the Secretary of the Navy, had itself no direct authority over the production bureaus, which were the agencies primarily concerned.

By this time delays in production had made themselves sufficiently manifest to give the production departments more interest in the theory that lack of housing might be measurably responsible for inability to secure and hold labor and for delays in output, and this contributed to the attention paid the Hiss report.

The Hiss investigation was completed in August; the Eidlitz committee was appointed in October. On October 31, after a thorough inquiry, it submitted a report urging summary action to remedy the situation. ". . . It thus appears," the report states, "that as long as present conditions are allowed to continue, each day that passes will be measured by a serious and perhaps vital loss in munitions. The committee feels that the existing emergency demands immediate action and is convinced that under proper safeguards the government should give quick financial aid to such industries or communities as can clearly demonstrate their right to relief. . . . Some loss to the government may reasonably be expected, but the expenditure necessary to give relief is negligible when measured by the loss incident to delay in the execution of the vast war orders already placed." Specific recommendations were appended.

Twelve days later Mr. Eidlitz was asked to investigate the possibilities of securing funds for housing in the existing appropriations of the War and Navy Departments and the Shipping Board. He found that although the War Department had authority to advance funds to manufacturers the conditions necessitated their return within too brief a period to make them of material service for housing purposes; that the Navy Department could do a certain amount toward solving the difficulty where destroyers or their accessories were being manufactured; while the Shipping Board, under existing legislation, had powers which could be construed as giving it authority to provide housing out of its general fund. This did not, however, solve the problem, especially in view of the fact that frequently the same plants were making munitions for all three agencies, thus raising the question of jurisdiction over any program. On November 24 Mr. Eidlitz submitted an additional report in the form of a letter to the Secretary of War, as chairman of the Council of National Defense, informing him of his findings as to the availability of funds, again urging speed, and outlining a program.

The essence of his recommendations was the utilization as far as possible, by a policy of loans, of existing local organization and facilities for building, both because it was felt that the general temper of Congress and the public was opposed to governmental interference to an extent greater than absolutely necessary, and, most important, because the government had no administrative machinery for housing construction and it was realized that months would be consumed in its establishment. The real controlling factor in the mind of the Eidlitz committee was time. In the lack of government machinery as well as in character the problem differed from that in England, where a national housing policy and the machinery for carrying it out already existed.

THE ABSENCE OF SINGLE RESPONSIBILITY

This report was presented to the Secretary of War late in November. The housing problem, while still agitated beneath the surface, then dropped from the public view for more than a month. In this interim what was happening was about as follows,

remembering always that underneath the administrative history are many currents of human relationships which profoundly influenced the results.

The Eidlitz report was conclusive enough evidence that the whole war production program was clogging for lack of housing and that something should be done immediately, but who was to do it? The individual bureaus were responsible for production, and therefore inferentially for housing, but none of them, apparently, had statutory authority to offer more than patchwork expedients for a situation that obviously demanded broad general action. Further, most of the seriously congested centers were making munitions alike for the Army, the Navy, and the Emergency Fleet Corporation. Were all three to go to Bethlehem jointly and build houses, or was one of them to go there and build houses for the use of the other departments concerned? The whole question was wound up in a tangle of overlapping administrative and legislative jurisdiction. Of the three departments chiefly concerned, the case of the Emergency Fleet Corporation was the clearest, both as to powers and as to obligations, and the Corporation set up forthwith the beginnings of an organization to deal with housing with Mr. J. Rogers Flannery in charge.¹ It did not for many weeks get beyond planning, however,² as in spite of apparent powers the Corporation was very loath to go ahead on an extensive program without specific congressional authorization.³ One of its

¹ Prior to Mr. Flannery's appointment the Fleet Corporation, through Admiral Capps, had appointed an Advisory Housing Committee, which had been conducting an independent investigation in co-operation with Mr. Eidlitz. Although this agency was subsequently absorbed by Mr. Flannery's organization, for a time, such was the confusion, the Advisory Committee and Mr. Flannery were both functioning on the same problem in the Emergency Fleet Corporation without being really aware of each other's activities! One had been appointed by one official of the Corporation, the other by a different one.

² This is not strictly true, as a housing project was started at Bristol, Pennsylvania, even prior to the inauguration of a formal housing department in the Fleet Corporation, financed by funds temporarily appropriated from the fund for building the plant.

³ Admiral Bowles testified before the House Committee on Merchant Marine and Fisheries on January 25, in the hearings on the Shipyard Housing Bill, (a) that the Corporation had no power to acquire land without special legislation, (b) that if it were given power to requisition, which the bill included, it could save the necessity of building houses in many places. The Corporation had taken steps in several places to relieve the housing difficulty by aiding in the provision of transportation facilities to shipyards from nearby towns possessing living accommodations.

first steps was to prepare a bill, subsequently introduced in Congress, appropriating \$50,000,000 for housing in the shipyards.

Meanwhile the general confusion in labor policy was bringing about an agitation for a central war labor administration, and during December the housing problem was wound up in the conferences on this plan. The central administration was finally authorized by the President on January 4, on the recommendation of the Council of National Defense. The plan included general jurisdiction over housing and living quarters for workmen, and responsibility for the housing problem was therefore lodged in the Department of Labor, which the President designated as the agency for the administration of the war labor program.¹

RESPONSIBILITY PLACED, BUT—

The first essential for an effective solution of the housing problem was thus realized—a central agency was given jurisdiction over it. This agency had, however, neither funds nor administrative machinery for carrying out a program. The one had to be secured by congressional action, the other had to be created, and both promised to be lengthy processes.

The larger part of January was consumed in planning the establishment of the necessary administrative agencies of the War Labor Administration in the Department of Labor, a task performed by the Advisory Commission to the Secretary, appointed January 16. The plan included a Bureau of Housing and Transportation, of which Mr. Eidlitz was subsequently asked by the Secretary to take the directorship. In this bureau it was intended to centralize and carry out the nation's housing program.

Given six months or a year to organize and the whole scheme would doubtless have become a well-oiled smoothly running machine. But the war wouldn't wait, and the housing problem particularly was constantly crying louder for action. The production bureaus

¹ Of the considerations which underlay this decision it is not necessary to speak here beyond pointing out that with no central control of production the Department of Labor seemed to offer the only possibility of reconciling the interests of the several production departments and establishing the common labor policy for which the need was so manifest. See L. C. Marshall, "The War Labor Program and Its Administration," *Journal of Political Economy* (May, 1918), XXVI, 425-60.

had at last really awakened to its vital character. Especially was this true of the Emergency Fleet Corporation, which by the first part of January had introduced in the House its separate bill appropriating \$50,000,000 for its own needs without regard to those of the other departments. Pending action on this bill the Corporation was going ahead with certain projects, particularly one providing a thousand houses at Sparrows Point, on the basis of the authority it already possessed.

In addition the Ordnance Department, the War Department agency most affected, was realizing its desperate need for action. Although there were legal difficulties in the way, it set up a housing organization in January and began a rather ambitious program of housing construction, loaning the necessary funds from its general production appropriation. Practically all its activity was undertaken at isolated explosive, nitrate, and bag-loading plants. Sixteen towns were started, the most extensive being Old Hickory, near Nashville; Nitro, near Charleston, West Virginia; Muscle Shoals, Alabama; and Hammondton, New Jersey. The construction and management of many of these projects were later taken over by the Housing Corporation when partly completed.¹

At the very time that the Secretary of Labor was given the authority to assume jurisdiction over the war labor administration he was confronted with the fact that part of his new duties had already begun to run wild back into the old administrative turmoil.²

¹ Although as at first planned the plants for which these houses were constructed were to be converted to peace uses, it is probable that some of them may now be shut down, both plant and houses becoming losses, except for salvage.

² On January 25 Grant Hamilton, legislative committeeman of the American Federation of Labor, went before the House Committee on Merchant Marine and Fisheries and asked them to suspend action on the pending shipyard housing bill until they had heard the Secretary of Labor on the general housing scheme. The testimony clearly indicates that neither the committee, nor apparently the Emergency Fleet Corporation officials, had heard of or at least realized the significance of the President's memorandum creating a war labor administration.

At the same time Charles H. Whitaker, an outside expert witness, stated in his remarks to the committee: "I have been very much astounded that neither Mr. Flannery, Admiral Bowles, nor Mr. Cuthell seems to have any knowledge of the Advisory Council of Labor [Advisory Council to the Secretary] and the fact, if the English language is at all clear, that all matters relating to housing have been placed under its jurisdiction."

The incident is sufficiently illustrative of the general lack of team play among the different agencies of the government.

There were good reasons, however, for the Secretary's unwillingness to be arbitrary about the matter. The Fleet Corporation unquestionably needed houses badly; it had an organization partly built up, while the Department of Labor had not; it seemed impossible to justify any step that would cause further delay in construction. Yet meanwhile a separate bill had been prepared by the Department of Labor with the support of the Army and Navy authorizing the President to spend \$100,000,000 for war housing purposes, with the idea of thus making funds available for the Department of Labor.

Various expedients of consolidation were considered, consuming several weeks, during which the situation was further complicated by the discovery that the Treasury Department was considering entering the industrial housing field through its War Finance Corporation. The tangle was finally ended by a conference decision of the departments involved that to save delay Congress should proceed with the Fleet Corporation Bill as it stood and that a new bill should be introduced providing \$50,000,000 for the general program, the two organizations to be consolidated in some form later under the general jurisdiction of the Department of Labor.

No attempt will be made here to follow the various vicissitudes undergone by the two bills in their passage through Congress. With so much confusion of purpose and method in the administrative program, it is hardly surprising that Congress had at least as many different ideas as to the proper solution of the problem. Lack of previous accurate information on the needs, legislative distrust of administrative officials, desire to dictate the details of administration, general lack of concert between the legislative and executive branches, and the delays of legislative procedure, all contributed to the length of time consumed before the measures became law.

The Fleet Corporation bill was finally passed and approved on March 1, 1918, the general housing bill not until May. The latter finally became law on May 16, authorizing in its final form a total expenditure of \$60,000,000,¹ of which \$10,000,000 was to be used

¹ Both of the first appropriations were purely arbitrary, with no relation to the ultimate needs of the country if the war were to continue.

in the District of Columbia. This made possible the formation of the Bureau of Industrial Housing and Transportation in the Department of Labor, but it was still necessary to put through another bill, actually appropriating the money, and it was not until July 25, practically a year after the Hiss investigation, that the funds authorized were finally made available to the United States Housing Corporation, the agency established by the bureau to administer its program. The Fleet Corporation's appropriation was later increased to \$95,000,000 and that of the Department of Labor to \$100,000,000.

A study of the housing program as actually carried out, then, includes chiefly two main agencies, the United States Housing Corporation, organized by the Department of Labor, and the Division of Passenger Transportation and Housing of the Emergency Fleet Corporation.¹ Before attempting an estimate of results it will be convenient to give brief separate consideration to their organization and character.

THE UNITED STATES HOUSING CORPORATION

The United States Housing Corporation was incorporated under the laws of the state of New York on July 9, 1918, to administer all government housing for industrial workers with the exception of the shipyard program. Otto M. Eidlitz, who had been appointed director of the Department of Labor's Bureau of Industrial Housing and Transportation on February 8, became president of the corporation, and its directors and officers were all men who had been associated with the work of the bureau. The purpose of the incorporation was simply to facilitate the work of administration, and from that date all the major work of the bureau was done through the Corporation.

Although the first funds were not made available to the Corporation until July 25,² it had been possible previous to the incorporation

¹ Although during the legislative controversy in January it had been informally agreed that the whole housing program should eventually be merged under the central direction of the Department of Labor, thus establishing a common policy in accordance with the President's memorandum of January 4, the two agencies have remained entirely distinct and separate. Work once under way, the difficulties of combining organizations proved too strong.

² The bureau was allotted \$60,000 from the President's emergency fund, which served to pay some expenses of preliminary organization. The delay in getting under

to begin the organization of the necessary administrative machinery. The expedition with which his working organization sprang into shape as soon as the necessary authorization was secured in July is sufficient evidence that the efforts of the director and his staff of voluntary helpers were not entirely wasted through this weary period of marking time.

Once authorized to go ahead, the whole approach of the Corporation to the problem seems to have been admirable, both in its conception of the task and in the character and scope of the machinery set up to cope with it. A survey of its operations shows that the director and his associates clearly realized that their task was not simply one of throwing together in the quickest possible time enough walls and roofs to shelter war workers, but was an exceedingly complex and far-reaching human problem, demanding the utmost speed of solution, to be sure, but requiring at the same time the greatest good judgment and experience if it were to achieve the desired results. In other words, it demanded a team of experts, touching many varied sides of the industrial problem. Some of these men, under normal conditions, would have been impossible to secure at almost any price, but the emergency brought them into the Corporation's service sometimes for nothing.

To quote from a report which the Corporation has made to the Secretary of Labor, it sought to provide for the war needs of the country in the following general ways:

- a) By making available to the utmost such housing facilities as were found by careful investigation to exist in or near the communities in question.
 - b) By linking up, through improved transportation, the places where labor was needed with the places capable of housing it.
 - c) By stimulating, aiding, and encouraging private capital to build.
 - d) By aiding in the distribution of labor and in the placing of war contracts in order that housing congestions might in this manner be avoided or reduced.
- And finally, and only as a last resort,
- e) By the construction and operation of houses, apartments, and dormitories.

way did, of course, give the Housing Corporation more time for laying its organization plans on a broad basis, and enabled it to a certain extent to profit by the previous experience of the Fleet Corporation and the Ordnance Department.

ADMINISTRATIVE METHOD

An examination of the administration of the plan shows a thoroughly clean-cut organization for carrying out this program, possessing a careful delimitation of expert functions, with abundant evidence of common planning and opportunity for executive driving power at the top. The officers of the Corporation consist of a president (the director of the Housing Bureau), a vice-president, a secretary, a general manager, and three assistant general managers. Under this central organization are thirteen separate divisions, the manager of each of which is a member of the central staff.¹ The divisions are in turn subdivided into sections as their technical needs require. The organization is obviously capable of almost unlimited expansion without confusion had the war demanded it.

While it is somewhat outside the scope of the present study to go into the details of administration, it is distinctly worth while as illustrating the foresight and general vision with which the Corporation began its task to outline these divisions. In many ways their character throws a clarifying light on the problem itself.

Named roughly in the order in which they might normally be supposed to function, they are as follows:

1. The Division of Surveys and Statistics, responsible for the gathering of information, the investigation of the relative urgency of projects, and the recommendation of the kind of action, if any, to be taken by the Corporation.

2. The Division of Homes Registration and Information, for the organization and more effective administration of existing facilities.

3. The Transportation Division, for dealing with all local transportation problems, pursuing an aggressive policy of promoting better transportation facilities between town and plant to save the need for new housing.

4. The Real Estate Division, organized to handle the Corporation's land and real estate problems as soon as policy dictated the necessity of purchase.

¹ Contact with the production departments which the Corporation was to serve was secured through representation on the executive staff of the Corporation. No project was undertaken without the assurance of these departments that the war need was urgent.

The three so-called "design divisions," whose work was co-operative, but still distinct in character:

5. The Architectural Division.

6. The Engineering Division.

7. The Town Planning Division.

8. The Requirements Division, whose functions had to do with the effective procurement of supplies and materials, working in close touch with the War Industries Board. It also passed on federal licenses for private housing operations.

9. The Construction Division, in charge of actual construction where undertaken.

10. The Industrial Relations Division, organized to handle labor problems arising in construction work, to promote the rapid and efficient prosecution of the task.

11. The Legal Division, serving the Corporation and its several divisions alike in legal problems arising in their work.

12. The Fiscal Division, for the proper administration of the Corporation's financial affairs, including accounting, auditing, and disbursing.

13. The Operating Division, for the effective administration of completed projects, having general supervision over matters of town management in its broadest sense, rents, and other problems on which the success of the ventures hinged.

The concrete results may be divided under four general heads: (1) the classification and organization of existing housing facilities under local bureaus, with the promotion of community effort to solve the housing problem and in addition to regulate rents and prevent profiteering; (2) permanent improvements in local transportation, carried out chiefly through loans to private corporations; (3) stimulation of private construction of workingmen's houses; (4) the undertaking of the construction and operation of carefully planned modern industrial villages.

1. The first of these activities, directed by the Division of Home Registration and Information, was carried out by enlisting local community interest in the enterprise. The procedure has usually been to establish a committee, with the co-operation of the local Council of Defense or Community Council, composed of representatives from the Council, the Manufacturers' Association, the

Real Estate Board, the local labor organizations, and any other civic organizations which could be utilized, presided over by a chairman appointed by the Federal Housing Bureau. Under the direction of this committee a local branch of the United States Homes Registration Service has then been established, with offices almost invariably in the headquarters of the local office of the United States Employment Service, thus establishing the necessary contact between the two functions. A vacancy canvass has then been carried out and the registry service started. While the Division at Washington has maintained general supervision over the work, both the expense and the administrative effort have been supplied almost entirely by the local interests.

Up to November 16 sixty-six of these registries had been started in industrial communities and forty-one more had practically completed their vacancy canvasses but had not yet begun to make placements, a total of 107. The total number of placements reported up to November 16 was 31,389, averaging in November more than 3,000 a week. The Division estimates the actual numbers at two or three times this figure.

Doubtless there have been great variations in the results secured by different agencies. Yet the longer they remain the more valuable they will tend to become, and it is inevitable that the Division's policy of utilizing local effort has in many places stimulated community interest in the industrial housing problem to a point where it will retain permanent value whatever the fate of the federal Division. In the problems of demobilization and readjustment the bureaus already organized should have a highly important place, while it is perhaps not too much to hope that the value of the co-operative effort which they have called forth may be realized and that they may be retained in some form as a permanent asset to the community.

In addition to the stimulation to community effort in the registration project itself the Division has further brought about common action on rent profiteering during the war by the organization of local committees, which chiefly through hearings and the pressure of public opinion have very effectively reduced the extravagant demands of would-be war profiteers. In addition about four hun-

dred unoccupied dwellings were requisitioned in various places.¹ This work has unquestionably tended to prevent many possibilities of unrest and to stabilize the labor supply, and here, too, although the success of these methods was undoubtedly much assisted by reliance on the patriotic motive, the experiment seems to have been carried far enough to justify the assumption that it may be continued in the future by community effort.²

2. For transportation, up to the date of the signing of the armistice, the Corporation had expended about \$6,000,000. Practically all this fund was loaned at 5 per cent to private corporations for permanent improvements, the expense of which will eventually return in part at least to the government. These loans cover twelve separate cities and towns. Additional loans to the amount of \$1,275,000 had been recommended and were in process of negotiation on November 16. Necessarily much of the work provided for was incomplete at this time, but it has been undertaken in permanent communities and will not be in any sense a total loss, although the government contracted to bear the excess war cost to be fixed by appraisal within one to three years after the end of the war.

The general effect of the Division's work in relieving housing congestion, while not as extensive as the results of the corresponding Emergency Fleet program, may be indicated by the results of the installation of twenty-one special steam trains in communities in Connecticut, Illinois, Ohio, New Jersey, New York, and Virginia, which have cared for at least 8,000 people at an annual expense of approximately \$275,000. This is at the rate of \$25 per man per year, as compared with \$550 for housing a man in a specially built dormitory and \$1,750 to \$2,250 for a house in original outlay.

¹ On August 26 a bill was prepared by the Corporation and introduced in Congress authorizing the commandeering of occupied dwellings in order to give the Corporation further leverage against profiteers. Hearings were held, but the act was still in the hands of Congress when the war ended.

The housing situation in the District of Columbia, caused by the influx of clerks and war workers, is a story in itself and has purposely been omitted from this discussion, first, because it was not strictly an industrial community question, and secondly, because its effects are largely confined to the period of the war.

² Many of these committees have already indicated their intention of continuing, whatever the fate of the Housing Bureau.

The transportation solution, in the emergency, necessarily also had decided advantages in speed.

3. With the Corporation's encouragement and help about \$43,000,000 worth of private building was undertaken for which private investment would neither have wished nor have been able to assume responsibility without this stimulus, owing to the difficult market for materials and labor. This work was handled by the Requirements Division, which had been designated by the War Industries Board as the agency to pass on the legitimacy of private war housing projects. The Division was therefore able to control the whole field of private industrial housing operations, and through the issuance of licenses to stimulate private effort.

The Division estimates that it was able to interest private capital in enterprises aggregating 13,500 houses for workmen and in addition passed on and approved privately financed dormitories, Y.M.C.A., and similar projects accommodating an additional 2,100 persons, costing approximately \$2,500,000.

4. As for the construction program proper, the signing of the armistice curtailed it before it had had a chance really to justify itself.

The program as contemplated prior to November 16 was designed to provide for 75,000 workers; the revised program will care for perhaps 25,000.¹ The contract amounts up to November

¹ On November 4 the building program of the United States Housing Corporation covered houses, apartments, and flats for 24,792 families, and dormitories, hotels, and boarding-houses for 23,659 workers. Contracts had actually been let for housing for 10,793 families and 16,434 single workers. Any estimate of the total number of workers to be housed must be reached through an arbitrary calculation based on assigning a definite number of workers to each family.

The reduced program as of December 4 was for housing 7,721 families and 8,456 workers; as of January 4 for 6,217 families and 8,307 workers. Ninety-eight projects were listed up to November 11:

Construction contracts let.....	60
Plans completed—ready for contract.....	25
Plans in preparation.....	5
Plans ordered.....	3
Investigations completed.....	5
	<hr/>
	98
 Projects abandoned November 11.....	 61
Projects curtailed November 11.....	15
To proceed as planned.....	22
	<hr/>
	98

16 aggregate in round numbers \$63,500,000¹ for a total of seventy-nine contracts. Of the reduced projects, the cost has been cut from \$17,000,000 to \$11,000,000. Of canceled projects to cost originally \$17,600,000, the approximate final cost is estimated at about \$4,000,000, while the remainder, amounting roughly to \$5,500,000, are canceled without loss. The total approximate final cost of the construction program alone the Corporation estimates at \$38,424,915.11, to which it added a 15 per cent safety factor, making a final estimate of \$44,188,652.38.

All told, the projects which are proceeding are in thirty different communities, although in several instances two or more projects are being developed in the same vicinity, as at Erie and Bethlehem, Pennsylvania, and at Quincy, Massachusetts. Of the thirty, the most extensive developments are at Bethlehem, Erie, Davenport (Iowa), Bridgeport, Philadelphia, Portsmouth (Virginia), and Washington, D.C. All these call for expenditures of more than a million. None was entirely complete at the time the armistice was signed, although an "appreciable number," to quote the Corporation, were to be finished by the first of January. At the date of this article the future of the whole remaining program was doubtful owing to the uncertainty of congressional policy.

In analyzing the Corporation's method of procedure, perhaps the most striking part of its policy is its constant emphasis on the use of local facilities, local expert assistance, and local co-operation in the prosecution of its program. It seems to have demonstrated with remarkable success the soundness in a federal undertaking of centralized control of policy with widely decentralized and diversified tactics and administration to meet local conditions. The design of the projects, the methods of acquiring real estate, and the widely varying choice of materials and means illustrate, as well as the local community organization methods of the Division of Homes Registration already described, the Corporation's refusal to yield to the temptation to place a uniform bureaucratic stamp on all

¹ This does not include the cost of engineering work, sewerage, lighting, paving, etc., estimated at about \$13,000,000 by the Engineering Division, nor the expenditure of about \$5,000,000 for real estate. Nor does it include, of course, administrative, overhead, designing, town planning, etc., which, however, was a relatively small item.

its projects alike. The primary and immediately controlling reason for this was doubtless the time factor already mentioned, but underlying that can be seen running through the work of all its divisions the realization that this elasticity of treatment is the policy which in the long run is best adapted to attain results in any American federal project. It not only made possible quick organization and prevented unwieldiness in the Corporation at Washington, but it brought to the fore everywhere the cordial co-operation of the communities concerned. At the same time there was no sacrifice of control of the spirit, purpose, and policy of the general plan.

The actual construction work was carried out by private contractors, carefully selected,¹ following the selection of a site by a committee representing the three "design divisions" and the Real Estate Division.

The Corporation's real estate policy is an excellent example of the manner in which it has sought to conserve the public interest. Real estate was purchased outright by a negotiator appointed by the Real Estate Division, at a price based on the recommendations of local appraisers secured through the patriotic co-operation of

¹ In the selection of contractors the Construction Division pursued the policy which had already proved successful in the selection of contractors for other government construction work, developed originally by the Emergency Construction Committee of the Council of National Defense for the cantonment construction work. It consisted of a careful preliminary investigation of the resources, fitness, and general availability of contractors for a particular project, followed by an invitation to bid addressed to those (usually six or eight) who seemed best fitted for the task. The bids were based on a fixed cost of materials, which were purchased through the Construction Division of the Army, and therefore standardized, and an itemized estimate of the cost of construction carefully prepared by the Construction Division of the Corporation was used to check up the bids. Under the terms of the act the contracts were to be given to the lowest responsible bidder.

The contracts, with the exception of a few let at a fixed price early in the program, were of the cost plus a fixed fee type, the later cases penalizing the contractor for a cost below estimate and giving him a bonus for reducing cost. Cost plus percentage contracts were forbidden by the act. It was found that under the fixed price system the contractor would include in his bid all possible risks of increased cost of materials and labor, while if the government assumed these risks "some, at least, of the increases would not occur," and the government would be the gainer. The average contractor's fee for contracts of more than \$1,000,000 was $2\frac{1}{2}$ per cent and on contracts of less than \$1,000,000 about $3\frac{1}{2}$ per cent.

the mayor of the town, the Real Estate Board, the Rotary Club, and the assessor. The Division estimates that its policy of seeking local co-operation in forestalling land profiteers secured its real estate for \$870,000 less than the asking price.

The architect, engineer, and town-planner for each project were selected from private practice by these respective divisions, but their work was carefully reviewed and revised by the divisions themselves. Both the professional work and the construction proper have been supervised throughout its progress.

The real value of the resulting achievement may best be discussed in conjunction with that of the Fleet Corporation.

DIVISION OF PASSENGER TRANSPORTATION AND HOUSING OF THE EMERGENCY FLEET CORPORATION

The Division originated in the Housing Department of the "Division of General Service," created by the Fleet Corporation in December, 1917, with J. Rogers Flannery as director.¹ Although this department made some progress in investigating and planning, lack of funds, together with the confusion in policy and hesitation already described, prevented any definite general action for two or three months. The \$50,000,000 appropriation bill became law on March 1. On April 3 a separate Passenger Transportation Service Section was created, with A. Merritt Taylor as director, to which later fell the exercise of powers contained in an act of Congress finally approved April 22 and delegated to the Corporation by the President on June 18.

The two functions of housing and transportation continued to be exercised in this disjointed manner until May 7, when they were merged in the single division as it now stands, Mr. Taylor assuming the directorship, while Mr. Flannery remained as associate director until his resignation on July 30. Although some commitments had been made prior to May 7, the real history of accomplishment virtually begins with that date.

On June 1, the Division's appropriation for housing was increased to \$75,000,000 and on July 1 it was given \$20,000,000 in addition for transportation purposes, making a total of \$95,000,000

¹ The earlier advisory housing committee has already been mentioned.

as compared with the \$100,000,000 at the disposal of the United States Housing Corporation.

Practically the whole of the amount authorized for housing had been committed by the Division by the time the armistice was signed in a program accommodating about 30,000 workers the greater part of it for family houses.¹ On the first of October, buildings, including houses and dormitories, had been completed and occupied at Hog Island, Philadelphia, Bristol and Chester, Pennsylvania; Newport News, Virginia; Sparrows Point, Maryland; Portsmouth, New Hampshire; Camden, New Jersey; Tacoma and Vancouver, Washington. In addition, 2,483 buildings, including 27 dormitories, apartments, and boarding-houses were under roof at Newport News, Virginia; Sparrows Point, Maryland; Portsmouth, New Hampshire; Camden and Gloucester, New Jersey; Chester, Hog Island, Philadelphia, and Easington, Pennsylvania; Lorain, Ohio; Wilmington, Delaware; Port Jefferson, Long Island; and Bath, Maine; the greater part of which were undoubtedly well on the road to completion by the time the armistice was signed.² Transportation facilities had been established or undertaken at about thirty places.

The program was, then, much nearer to completion at the end of the war than that of the Housing Corporation. Essentially the problem which the two government housing organizations had to meet was the same, although in the Fleet Corporation's there is a larger percentage of undertakings for isolated plants, owing to the nature of the industry concerned. There seem to have been few instances, however, where the necessary public utilities could not be obtained through nearby communities. In both cases actual housing construction was undertaken only where there was obviously permanent need for it, with the consequent promise of permanent utility in the developments undertaken.

¹ On October 1, the commitments were \$64,802,845 for housing, \$9,620,288 for transportation. The housing was to include 9,443 houses, 60 dormitories, 95 apartment buildings, 11 cafeterias and mess halls, 27 boarding-houses, and 300 tents.

² By far the larger part of both housing and transportation activities were undertaken on the Atlantic Coast. The Division estimates that shortage of labor and materials were both far less acute on the Pacific.

ADMINISTRATION

In general the administrative organization of the two agencies is very similar. The Division consisted of two departments, one for housing, the other for transportation. Under the Housing Department were four bureaus: (1) the Investigation Bureau, for the examination of proposed projects; (2) the Production Bureau, charged with the preliminary planning and the actual construction of projects and divided in turn into the Design, Engineering, and Construction branches; (3) the Property Bureau, charged with the acquisition and maintenance of property, including real estate; and (4) the Accounts and Statistics Bureau. This is less elaborate than the organization of the Housing Corporation, partly because it depended on other divisions of the Emergency Fleet Corporation for part of its staff work, as in the case of legal advice and labor administration.

There were also certain differences in policy which contributed somewhat to this contrast. The distinction is that the Fleet Corporation throughout has sought control, not ownership, of its construction projects, and a larger amount of administrative overhead is therefore borne by the holding corporations.¹

As compared with the Housing Corporation, the policy of the Division in its several particulars has been as follows:

1. Transportation. Loans for improvements in transportation have been made on virtually the same basis, the transportation companies paying the Fleet Corporation 5 per cent interest and guaranteeing repayment with an amount to be adjusted written off as excess war cost.

The Division estimates that additional and improved facilities on October 1 were being used by 66,000 shipworkers, and that 69,000 additional would be provided for under the existing program when realized, with an excess for 49,000 more to care for future growth, a total of 184,000.

¹ For these reasons, as well as the fact that the Housing Corporation was designed for a greater ultimate expansion, it is not possible to make a fair comparison of the expense of administrative overhead for the two, although the salary list for the Division October 1 was \$798,840, while that of the Corporation on November 1 was \$2,269,452.

2. Real estate. With only two important exceptions (Hog Island and St. Helena) the Housing Department of the Division has required that the land be procured "without cost to the government either by (a) purchase for the account and with the funds of the shipbuilder, (b) purchase from a fund contributed by citizens to a corporation formed for the purpose, as at Wilmington, Delaware, or (c) the investment in suitable land through a corporation formed through some public body, such as undertaken by the Board of Trade of Savannah, Georgia."

It is thus seen that in the acquisition of land, whereas the Housing Corporation has pursued the consistent policy of buying real estate outright and building the houses itself, the Division has followed much more closely the original Eidlitz plan of placing this responsibility entirely on local agencies through a loan policy.¹

In furnishing public utilities the two organizations have pursued much the same policy—requiring these facilities from the local communities or public utility corporations; where necessary, loaning the necessary funds on proper security.

3. Construction and operation. The chief technical difference in the method of construction from that of the Housing Corporation is that the Division's projects are built for and in the name of the shipbuilder or realty corporation which holds title to the land,² thus giving them the immediate stamp of private ownership, which extends also to their operation.

¹ The principle underlying this difference is worth noting, although in effect the Fleet Corporation's control is so absolute that the distinction is chiefly technical. The Fleet Corporation has apparently assumed that it would tend to *government* paternalism for the Corporation to own the project, while the Housing Corporation has sought to protect the workman from *industrial* paternalism by refusing to let the employer own the land on which its projects were erected. The Housing Corporation has also held that purchase was a better protection against real estate speculators.

It is interesting to see that the Fleet Corporation's real estate policy has been that originally suggested by Mr. Eidlitz himself, while the latter, when he came to actual administration, adopted the government-ownership plan. It has been reported that at the time the Fleet Corporation began its operations the President did not wish the government to be placed in the position of a landlord and that he later changed his view, thus accounting for the policy of the Housing Corporation when it was actually developed. On this, of course, there never has been any statement from the White House.

² With the exceptions already noted, Hog Island and St. Helena.

Except for the possible effect of this policy on their ultimate disposition this distinction has been more nominal than real. The Fleet Corporation has advanced the money for construction, taking in return a mortgage on the property and other security, and has exercised complete control over design, the selection of architects, engineers, and contractors, as well as construction.¹ The management of the communities when complete has been furnished usually by the holding companies, as against government management in the case of the Housing Corporation, but here, too, the Fleet Corporation has retained complete control over the method of accounts and reports, forms of applications, leases, restrictions, and regulations; fixation of rentals; procedure on allotment of houses; provisions for maintenance and upkeep; and plans for community organization and civic activities.

The Division has paid much attention to the question of rent profiteering, but its action has been through federal agents rather than through the organization of local effort.

THE RESULTS OF THE GOVERNMENT'S VENTURE

Yet with the war over, the important consideration from the public standpoint is not the administrative history of the program, suggestive as that has been in many particulars, but the concrete results of the venture² and its influence on the future of the national community. To the winning of the war the program as a whole can hardly be considered to have contributed in any marked degree, except as the prospect of houses stabilized the labor supply during the summer and to that extent added to the spirit of concentrated energy which pushed the shipping and munitions program during the last few months prior to the signing of the armistice.

As between the practical accomplishment of the two agencies, further, there is a decided difference in favor of the Emergency

¹ The administrative method, form of contract, etc., has been very similar to that of the Housing Corporation already described.

² One of the by-products of the program which offers an interesting field for speculation is the extent to which it has crystallized the dislocations of the labor supply into a permanent shift in population due to the pull of the shipbuilding and new munitions industries. This will, of course, be impossible to gauge until the future of those industries is more definitely settled than now.

Fleet Corporation, due, not to any superior merit in organization, because in some respects both the organization and policy of the United States Housing Corporation were better conceived, but to its earlier start and the absence of many handicaps with which the latter agency had to cope. Among these advantages was a greater freedom from legislative restrictions, but the greatest obstacle which confronted the Housing Corporation when it was finally allowed to get under way was the labor situation. The last agency in the field, with no really effective national scheme of distribution, it had to take what it could get in the face of a competition still almost unrestricted, not only from private or semiprivate war industries, but from other government agencies. Not only was it compelled to pay extremely high wages for a relatively low productivity, but it frequently could not get nearly enough workmen for its needs.¹ In the face of this difficulty alone, not to speak of others arising from the war situation, it is a decided tribute to the capacity of the Housing Corporation that it made the progress and the speed it did. To these difficulties, particularly the labor obstacle, although it had an earlier start, the Fleet Corporation was of course subject only in a lesser degree.

It is not, then, the fault of the Housing Corporation that the end of the war found its program in a highly incomplete state, with, practically speaking, almost none of its projects in actual

¹ On November 1 the projects were only 50 per cent manned as an average, the earlier ones of course more, the later less, than this. From the beginning the Housing Corporation maintained an Industrial Relations Division of its own which constantly sought to stabilize conditions. In spite of the efforts of the United States Employment Service it was found necessary eventually to employ field agents to recruit labor, while individual contractors in addition hired labor scouts. The evil effects of these methods were fully recognized, but the Corporation had to do what everybody else was doing. So disturbing were conditions at one time that certain members of the Corporation's staff were seriously considering recommending that part of its work be suspended for a time, on the ground that crying as was the need for houses even that lack might be less damaging to the national cause than the effects of the construction program on the labor situation.

It is rather interesting to note in passing that in the face of such competitive conditions the Industrial Relations Division of the Housing Corporation sought to hold its contractors to a policy of ten hours a day as a maximum, with no Sunday work, on the ground that "all hours beyond ten each day and all Sunday work was an economic loss rather than a gain."

operation, while the Fleet Corporation's twenty-six projects are at present roughly 90 per cent done and a large part of them have been occupied for several months. Yet despite this and the curtailment of the more incomplete portion of the Housing Corporation's program already indicated, the part which has been or is expected to be completed will care eventually for nearly as many workers as that of the Fleet Corporation.

To make more clear just what these developments are it may be worth while to quote a few paragraphs from a report of the Housing Corporation, outlining its general policy. The description of design and purpose in general applies equally to the work of the technical section of the Fleet Corporation.

THE CHARACTER OF THE PROJECTS

Before determining on the construction of a project, the Corporation satisfied itself, after careful investigation, as to the industrial stability of the community and the probable existence of a normal population in non-war times which would justify such an addition to the local housing so that the enterprise would be regarded as a safe investment. Permanent construction in such a project usually included all the house combinations,—single, double, or grouped as rows in varying number; boarding-houses, apartments, and sometimes dormitories. Dormitories, however, have been employed only where there was the clearest assurance of their being urgently needed, where great speed was essential, and especially where the nature of the industry indicated an unstable post-war existence.

The Housing Corporation has sought to build for the comfort, convenience, and labor-saving of the woman most concerned and to that end the architect consults the needs of the wife of the workingman in order to ascertain what type of house will best meet her wants and comfort. A house which is suited to one community for this purpose may be entirely unsuited to the climate, general living conditions, and habits of another community, and hence comes the need of making a study of each community where houses of this character are to be built.

The results attained by these designers, although working as technical experts, should be such as to appeal at once to the least trained eye, as achieving the most practical, sensible, attractive, and economical construction and location of houses possible out of the material in hand. . . . Street after street in various cities is lined with a species of architecture "built by the mile and sold by the foot," to the uttermost wearying of the eye because of the monotony of the lines, dreary as the unrelieved straightness of the thoroughfares on which they are built.

In our completed project these same simple two-story edifices take on a new attractiveness. Balancing yield against investment, it was no extravagance to break the roof lines and shorten the rows into groups with some single and double houses; to construct the street plan with winding streets and closed vistas, to provide sufficient open area; to adjust the properties rightly, and vary the color and texture of the roofs and wall surfaces. Inside there has been the same effort directed to the best results without extra cost; putting four bedrooms where three used to fill the same space, eliminating superfluous hallways and the like; while due regard has been had throughout for the requirements of proper sanitation and the laws of health generally. The result of this combination of trained talent ought to give to the government the maximum value for its investment and thereby enable it to get the best results when it comes to sell these houses to private investors.

In spite of the speed with which they had to work, therefore, both government agencies have been able, through dealing with large housing units—with whole villages at a time—to achieve something entirely new in this country in industrial housing. The projects naturally vary in quality, due to differences in local conditions, in material, in location, and the necessities of the individual problem. Yet all of them, it is safe to say, have in them the possibility of showing a tremendous advance over the average which had characterized American industrial housing undertakings prior to the war, while the best of them compare very favorably with the best of the English garden villages,¹ until now unrivaled in their particular field.

The expression “have the possibility of showing” instead of “show” is used advisedly. For their value, both as forerunners of a sounder national housing policy and as a financial investment, depends almost entirely, not on the effort which has gone into their construction, but on the policy which is adopted in their management and disposition.

THE WAR COST ENORMOUS

It must be admitted at the outset in any discussion of their value that their cost has of necessity been enormous.² If the

¹ Buckman Village, at Chester, Pennsylvania, one of the best of the Fleet Corporation's undertakings, has been characterized by experts who have studied the English development as worthy to be placed in the same class.

² In spite of every reasonable precaution of both agencies to conserve their investments.

war-time expenditures on community development are to be taken as a fair test, it must be conceded that the experiment cannot be regarded as a paying investment. In addition to the huge excess labor cost, already mentioned, there has been a corresponding increase in the cost of materials. Toward the end of the war there were instances where the materials alone cost as high as the pre-war normal cost of a house of the same general type as that employed in one of the government's war projects, although both of the housing agencies were securing their materials through the common medium of the construction division of the army.

How much of this excess cost will have to be written off as a legitimate war loss in the disposition of the projects it is still too early to say,¹ for the value of the projects depends, not on their cost, but on the numerous contributing elements which go to make up the value of real estate in an industrial community. It is for this reason that the liberality of the policy adopted in their management will determine their real contribution to the nation.

The main elements that go to make up industrial community values may be stated briefly under three heads: (1) the stability of the industries themselves, (2) the convenience and attractiveness of community features, including both such vital matters as lighting, water supply, and sanitation, and also the "amenities," such as churches, schools, and amusements, and (3) the elements which may be included in the general term "management." On none of these, in their relation to the government housing projects, is it yet possible to write a final answer.

While every effort has been made to limit permanent housing to communities where the industrial development seemed to have a sure future (and in the great majority of cases the government housing construction has only met the normal housing growth of the town), there are cases where it may take years to determine this question. This is particularly true of some of the shipyards, while the housing built for some of the huge explosive towns in the interest of the Ordnance Department is almost sure to be a

¹ Officials of the Fleet Corporation have suggested 30 per cent as a reasonable amount to be written off as excess war cost. It is practically certain, however, that the percentage will be higher than this.

loss. In any event the precise demand for houses made permanent by the conversion of war industries to peace purposes will remain in some cases indefinite until the readjustment period is over.

On the second point even the most complete of the new communities must still be regarded in a sense as unfinished. Public utilities work is more often than not still unready, while it will take months and even years for their full attractiveness of design and plan to become apparent. Necessarily they are still bare of the lawns and trees needed to fill out the outlines which foresight has been able to provide.

Further, and here the policy of the Housing Corporation has been much broader in gauge than that of the Fleet Corporation, they are decidedly lacking in the "amenities." Schools, churches, and amusement places have still in most cases to be provided, and until they are the communities must necessarily in the long run fail to attract the families of workingmen. The Fleet Corporation's housing division has consistently refused to sanction such expenditures, it must be said in fairness against the judgment of progressive members of its staff, on the ground of economy and speed. The Housing Corporation, on the other hand, has taken the broad view of the problem—and has been strongly attacked in Congress for its "extravagance"—but the incompleteness of its program has prevented its good judgment from bearing fruit.

Finally, and here too the Housing Corporation has apparently shown a far wiser, saner attitude, the whole success of the undertaking, as a community problem, depends on the policy of the administration of the new towns. Not only must rents be properly adjusted, which naturally means a heavy financial loss from the point of view of the war cost, because of the necessity of regulating them according to the earnings of the tenants, but English as well as all available American experience has demonstrated the necessity for promoting really healthful community life if the projects are to achieve their purpose. Health, recreation, and education all have to be taken into account. If these new industrial communities are not to be overrun by the intrusion of new cheap structures, cheap "amenities," and cheap modes of living—and

the tendency has shown itself—a positive management policy will have to be adopted.¹

AN INCOMPLETE EXPERIMENT

The net conclusion of all this is that as a national experiment the government war housing program cannot yet be said to have demonstrated anything. It has not had time. But the nation, if it wishes, still has the opportunity to ascertain its real value. There are two possible courses open to the government: it can adopt the *laissez faire* method of disposing of its property at the first opportunity to the highest private bidder, seeking only the largest possible amount of immediate salvage; or it can hold them until a farsighted policy can be worked out which will assure, not only the saving of as much of the war cost as can reasonably be expected, but the full utilization as well of the available possibilities of social value.²

As the matter stands, both financial economy and political wisdom seem to indicate the latter course. Viewed from the first standpoint, while each project must be considered by itself, it seems unquestionable that these communities will at least not depreciate in value in the time necessary to bring them their full attractiveness,³ while if placed on the market in the present

¹ The prevalent tendency at Washington at present seems to be to permit most of the projects to drift into mere "company towns," with immediate salvage the only consideration. The Housing Corporation has resisted this attitude from the beginning and has sought to secure a real housing policy.

² It is true, of course, that the government does not own outright the Fleet Corporation's projects as it does in the case of the Housing Corporation. Its control is so complete, however, that the distinction is purely technical so far as freedom of action is concerned.

³ It must be remembered constantly that the government's investment has not even counterbalanced the falling off in the normal growth of housing in industrial centers usual in an average year. Including both the government program and private building authorized by federal license, the total of workmen's housing undertaken during the war has certainly not exceeded \$200,000,000, which because of high costs has not represented the results normal to such an expenditure in pre-war years. The normal annual expenditure on houses of all kinds, as nearly as it can be estimated, is about half a billion. While aggregate figures of this kind involve some confusion, the surveys have everywhere taken into account normal local growth. Demobilization of an army of 2,000,000 will tend to disclose the falling off in building due to the war.

uncertainty in an ill-considered rush to get rid of them the government cannot hope to get more than a fraction of their real value.¹

From the second point of view, sale to the highest bidder would remove once for all in the case of many of the projects any opportunity for taking advantage of the planning and foresight which have gone into their construction. It is, unfortunately, as easy for speculative management as for speculative construction to ruin an industrial community. Not only does the removal of intelligent public control endanger the whole appearance of these new villages through the possible introduction of flimsy hodge-podge construction and the ultimate destruction of the advantage in attractiveness which has been gained, but it opens the whole venture to the chances of real estate manipulation—a method of development which before the war had notoriously failed to achieve a real solution of the industrial housing problem.

The question of the relationship between costs and rentals in large-scale projects—the whole problem involved in the possibility of a publicly controlled industrial housing policy remains undetermined. The experience thus far offers only an opportunity to work it out—the peculiar factors born of the emergency offer as yet no definite guidance for normal times. Yet there seems nothing to lose and everything to gain in the government's conserving the existing achievements until a carefully studied policy of disposal can be worked out for each of these new communities.

INDICATED GAINS

Despite the huge war costs, a material portion of which will unquestionably have to be written off, the government's experience has indicated if not demonstrated many possibilities in large-scale construction. The design divisions of the two corporations have developed many new possibilities of economy through

¹ It is probable that some, not all, of the curtailments already made have involved more financial loss than the completion of the projects would have done. Further, as practically all the developments have been carried out in accordance with the most careful estimates of permanent needs, it seems unfortunate that their continuation might not have been utilized as a temporary buffer against unemployment.

There are of course many instances where it is wisdom to scrap construction. This is frequently the case with dormitories and hotels for unmarried men.

simplification of fixtures and processes. Standardization and hence cheapening of accessories, in plumbing, for example, and to a certain extent in the grouping of rooms, have been worked out which promote a gain in speed and a saving in expense without endangering the objective, everywhere sought, of giving each home an individual touch in design. In design itself pronounced progress has been made which holds a promise, if properly followed up, of great advances in this special field. All these gains, made generally available, cannot fail to have their permanent effect on national housing progress.

Further, the government's activities have given a large number of able architects, engineers, town-planners, and contractors an interest in the idea, together with a practical if expensive working experience to draw on. Hitherto interest in modern industrial community construction in this country has been manifested chiefly in papers before societies, stressing foreign experience. The beginnings of an American tradition in this field have now been laid. The fairly wide distribution of the projects, together with the consistent government policy of securing local co-operation and utilizing local effort, has opened the eyes of communities and industries themselves to the possibilities and meaning of the venture. Yet the results of these tendencies depend very largely on the policy which the nation now pursues.

POSSIBILITIES FOR THE FUTURE

Further direct government construction, along the lines of British policy, for example, may be regarded as out of the question. Indeed, aside from political impracticability, there have been too many special factors born of the war entering into the efficiency of the two housing agencies to make their work a valid argument for such a policy.

If the nation wishes to take full advantage of its somewhat costly experiment, what are the practical possibilities for the absorption of the existing projects and the promotion of further development under normal conditions?

They are (1) a strictly profit-making venture, financed by private capital with no additional interest in the community;

(2) development by large industrial corporations, in the expectation of getting a moderate return on the investment, but with the chief object of stabilizing the industry's labor supply; (3) development by communities, either as a public investment or more probably by a company made up of manufacturers and interested citizens.

There are two main objections to the first—one strictly economic, the other social—both of which have contributed to its failure in the past. To promise success, an industrial housing venture of the kind under consideration demands the original outlay of a large amount of capital with a limited opportunity for profit. It is certain that this consideration will continue to deter money from entering the field. Second, if the modern industrial community is to serve its ultimate purpose, that object must be kept in view both in the construction and the management of the projects. Considerations of immediate profit, while not inevitably inconsistent with this purpose, undoubtedly tend often to appear so when the purely financial is not coupled with more general interests in the development. There is certainly no reason to suppose that reliance on this method will produce better results in the future than it has in the past.

On the second and third possibilities, it is apparent, must depend the real opportunity for an immediate further extension of intelligent treatment of the problem. Undoubtedly the management of many large industrial enterprises has been stimulated by the war experience to a more acute realization of the vital relation of housing to industrial efficiency and output.

Some experiments of this kind had been attempted even before the war, and during the war itself extensive developments were undertaken by large corporations, as at Bethlehem, but lacking experience the tendency was always toward hasty and insufficient planning and cheap developments. Some of the causes which contributed toward these comparatively unsatisfactory results have been removed by the combined experience of the government, including a probable increase in the liberality and breadth with which the practical aspects of the problem are

viewed. The possibilities of general development by single enterprises are necessarily limited to corporations possessing a large working capital and largely monopolizing the efforts of the community where they are located. Isolated shipyards, particularly with the stimulus already given them by the Emergency Fleet's policy, are a typical example.

The chief drawback to ultimate success in this method is the danger of either autocratic management or benevolent paternalism, either one of which must be avoided if anything like a continued satisfactory solution of the industrial community problem is to be secured. There is always the "company town" menace.

The third possibility, community construction and operation, whether by a housing company composed of manufacturers and representative citizens or by public community bodies, is the solution most applicable to the ordinary community situation. It offers the least difficulties in financing and the greatest opportunity for the free play of common interest, whether that interest is purely that of promoting efficient production or has a broader social basis. It is the plan already most considered in the liquidation of the government's present projects, aside from the shipyards, and plans are already under way for the ultimate assumption of control of some of these projects by community agencies.¹ It tends to minimize the danger that the permanent effects of intelligent construction and operation will be sacrificed to immediate expediency.

No matter what the particular plan adopted, however, there is always the possibility of one difficulty, that of obtaining money at a low rate of interest to finance these projects. Practically every other industrial nation has had to adopt some method of meeting this difficulty, and most experts on the subject incline to the view that a really satisfactory continuation of the good work started here will demand at least that amount of assistance either from the federal government or from the states. They believe that economic obstacles in really sound workmen's housing developments make some such scheme as that already undertaken in the Farm Loan Bureau equally imperative in industrial housing construction. Just what method shall be adopted is again a question to be worked out, but they regard it as vital that the credit

¹ At Bridgeport, for example.

of the federal or state governments be made available for this purpose.

There is, further, another consideration which must be taken into account. All the plans outlined seem to imply continued corporate ownership and a rental system. Can a really sound industrial community be established on this basis? Whatever the immediate disposition of the developments now existing and those of the future, it is idle to suppose that there will not be a strong and growing demand for some form of control of these community projects by the worker-tenants themselves. However liberal the corporate management, sooner or later the demand is going to come with a force too strong to resist.

Provisions have been considered from the beginning for the purchase of houses by individual workmen on easy terms, although the Housing Corporation has opposed their sale during the war as a protection to the worker from the risks incident to purchase during an uncertain situation. The tremendous costs which later developed have of course made their purchase by workmen on a war basis out of the question.

But will individual purchase even with excess war cost written off prove adequate? The labor movement generally has opposed individual purchase on the ground that it binds the worker too closely to his industry and restricts his power by limiting his freedom of movement. On the other hand the power of expulsion inherent in the rental system is equally dangerous, while the workman is not blind to the many advantages of ownership, which, indeed, meets an almost fundamental human desire. Further, the waste involved in a floating labor population has been too plainly demonstrated during the war to require comment.

The answer seems to lie in some form of corporate ownership in which the purchase of stock will be open to the workman, and which will always permit him, if he wishes to purchase his house, to dispose of it readily with a reasonable amount written off for depreciation. Here too crops up the necessity for money on low terms for the use of the individual workman. In some instances it may be possible to approximate the co-operative ownership and

management methods of the British, although there are in this country obstacles, racial and other, not found there.

NEEDED—A NATIONAL POLICY

All these suggestions come back in the end to the one answer: the necessity for a survey of the whole situation by a competent agency with a view to planning and recommending a comprehensive national scheme for handling the whole problem. The questions which have been suggested have yet no answer; they can be answered only by study and experience. The logical suggestion seems the establishment of a federal housing commission, composed of experts, some of whom at least have assisted in the war construction program.

As yet there has been no indication of the attitude the government intends to take beyond the apparent congressional desire to economize by wholesale curtailment and, still further, in many quarters a tendency to unload the whole program in the quickest possible time, salvaging whatever can be made out of the wreck.

There has never been less justification for *laissez faire* and short-sighted economy. Every larger national interest demands a more careful survey of the possibilities, while financial interest itself certainly has as much to lose by the one method as by the other. The communities most nearly concerned can probably assist much in the solution, and indeed it is upon them in the long run that the most of the responsibility for the success of the experiment will probably fall. Yet community action will have to depend in the beginning very largely on the federal government's discharge of its initial responsibility. It is to be hoped that such awakened intelligence and interest as have been aroused may stimulate Congress and the administration to a determination of policy consistent with the importance of the program to the national future.

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